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List of the Pseudoscorpions of North America North of Mexico

BY C. CLAYTON HOFF[1]

The present list of the species of pseudoscorpions of North America north of Mexico was begun during a survey of the literature in connection with taxonomic and ecological studies (aided by National Science Foundation Grant G112) of the pseudoscorpions of New Mexico. During a review of the literature, it became evident that at least in part a lack of interest in the North American pseudoscorpion fauna results from the relative unavailability of suitable reference materials. For example, since the publication of a list of North American Pseudoscorpionida by Coolidge in 1908, there has been published no resumé or list of North American species except in the world-wide monograph by Beier (1932a, 1932b) and in the very similar account by Roewer (1936, 1937, 1940).

The chief purpose of the present list is to make readily available information that may serve to stimulate and to facilitate work in what is certainly one of our more inadequately known animal groups. For general information relative to morphology, classification, and ecology, reference should be made to one or more of the general publications by Chamberlin (1931), Beier (1932a, 1932b, 1932c), Roewer (1936, 1937, 1940), Hoff (1949), and Vachon (1949). For American investigators, works by Chamberlin (1931) and Hoff (1949) will furnish the basic information needed to use the key to higher categories and genera included in this publication. In connection with the key, it must be kept in mind that only genera reported from North America north of

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[1] Department of Biology, University of New Mexico, Albuquerque, New Mexico.

Mexico are included, that some undescribed genera may occur in our area, and that inadequate information precludes certain generic assignment of a number of our species. Keys to species are not included because information is not sufficient to permit construction of satisfactory keys in some of the larger genera. Even if keys to species were included, the serious student would find it necessary, because of the possibility of encountering undescribed species, to check his specimens carefully against species descriptions in the literature.

In this list a serious attempt has been made to avoid including undue and often cumbersome detail and yet, at the same time, to retain a high degree of usefulness. *Nomina nuda* have not been included, but an effort has been made to preserve as many published species names as possible by including *nomina dubia* that ultimately may be reassociated with the proper species by a reëxamination of type specimens or by a study of topotypes. In the listing of locality records, restricted localities are not included, because to give locality records more detailed than state or province would make the list longer without contributing to its usefulness. For a given species, the localities are listed in alphabetic order, with the provinces of Canada and the Territory of Alaska following the states of the United States. In cases in which the type locality of a species occurs in North America north of Mexico, this locality is indicated by an asterisk after the name of the state or province. Under each genus, the species are arranged in order of the date of the original description, with species of doubtful or uncertain generic assignment placed at the end of each list. As considerable interest may be associated with a resumé of species found in individual states or provinces, alphabetic lists of species for each geographical area follow the systematic list. Species for which type localities occur within a state or province are indicated by an asterisk after the species name.

Included under each species is a short synonymy. These synonymies are not intended to be complete, the citations being selected to include the original species description, important redescriptions or discussions of species, and pertinent publications containing important locality records.

Unfortunately it is impossible to verify the accuracy of many of the published locality records upon which this list to a large extent depends. This is to be expected, because many species records are based wholly on reports published more than 25 and often as many as 50 years ago. In instances in which errors in published locality records are either evident or highly probable, the records have been omitted from the present listing. For the most part, however, these unacceptable and rejected records are mentioned or even discussed in accompanying notes. In spite of definite and concerted efforts to assure completeness and accuracy, there are no doubt numerous errors in the present list. An attempt will be made to correct all errors called to the writer's attention.

SUBORDER HETEROSPHYRONIDA CHAMBERLIN

FAMILY TRIDENCHTHONIIDAE BALZAN

VERRUCADITHA CHAMBERLIN

1. *Verrucaditha spinosa* (Banks)

Chthonius spinosus Banks, 1893, Canadian Ent., vol. 25, p. 67.

Verrucaditha spinosa, Chamberlin, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 59. Chamberlin and Chamberlin, 1945, Bull. Univ. Utah, vol. 35, no. 23, p. 24. Hoff, 1951, Ann. Ent. Soc. Amer., vol. 43 (1950), p. 534. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 160.

Verrucaditha megaloptera Chamberlin, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 59.

Florida,* Illinois, Indiana, Louisiana, Mississippi, Missouri, North Carolina, Ohio.

FAMILY CHTHONIIDAE HANSEN, *SENSU STRICTO*

TRIBE CHTHONIINI CHAMBERLIN

CHTHONIUS C. KOCH

1. *Chthonius* (*Chthonius*) *ischnocheles* (Hermann)

Chelifer ischnocheles Hermann, 1804, Mémoire aptérologique, Strasbourg, p. 118 (cited from Beier, 1932, Das Tierreich, vol. 57, p. 48).

Chthonius Pensylvanicus Hagen, 1869, Record of American entomology for the year 1868, p. 52.

Chthonius pennsylvanicus, Ewing, 1911, Jour. New York Ent. Soc., vol. 19, p. 80.

Chthonius ischnocheles, Chamberlin, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 71. Pearse, 1943, Anat. Rec., vol. 87, p. 464.

Connecticut, Florida, Illinois, Minnesota, New Jersey, New York, North Carolina, Pennsylvania. The only Illinois and Minnesota records are by Ewing and may be based on incorrect determinations. The single North Carolina record is by Pearse and is possibly based on specimens of *Kewochthonius paludis.*

2. *Chthonius* (*Ephippiochthonius*) *tetrachelatus* (Preyssler)

Scorpio tetrachelatus Preyssler, 1790, Verzeichniss böhmischer Insecten, p. 59 (cited from Beier, 1932, Das Tierreich, vol. 57, p. 56).

Chthonius longipalpus Banks, 1891, Canadian Ent., vol. 23, p. 164.

Chthonius tetrachelatus, CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 73. PROCTER, 1946, Biological survey of the Mount Desert region, pt. 7, p. 510.

Chthonius (*Ephippiochthonius*) *tetrachelatus*, HOFF, 1951, Amer. Mus. Novitates, no. 1483, p. 2. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 157.

Connecticut, District of Columbia, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia.

3. *Chthonius* (*Ephippiochthonius*) *californicus* Chamberlin

Chthonius californicus CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 74.

Chthonius (*Ephippiochthonius*) *californicus*, BEIER, 1932, Das Tierreich, vol. 57, p. 57. CHAMBERLIN, 1949, Amer. Mus. Novitates, no. 1430, p. 2.

California.*

4. *Chthonius* (*Globochthonius?*) *virginicus* Chamberlin

Chthonius virginicus CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 73. PEARSE, 1946, Ecology, vol. 27, p. 257.

Chthonius (*Globochthonius*) *virginicus*, BEIER, 1932, Das Tierreich, vol. 57, p. 55.

District of Columbia, Maryland, North Carolina, Virginia.*

5. *Chthonius? packardi* (Hagen)

Blothrus packardi HAGEN, 1879, Zool. Anz., vol. 2, p. 399 (cited from Beier, 1932, Das Tierreich, vol. 57, p. 61).

Chthonius packardii, PACKARD, 1888, Mem. Natl. Acad. Sci., Washington, vol. 4, pt. 1, p. 43.

Indiana (Wyandotte Cave*), Kentucky. As the type specimens appear to be lost, it will be necessary to obtain topotypes before a correct generic assignment can be made. Most records appear to be based, at least in part, on specimens not conspecific with the type specimens.

6. *Chthonius? coecus* Packard

Chthonius coecus PACKARD, 1884, Amer. Nat., vol. 18, p. 203; 1888, Mem. Natl. Acad. Sci., Washington, vol. 4, pt. 1, p. 46.

Virginia (Weyer's Cave*). Proper generic assignment depends upon a reëxamination of type specimens or, if the types are lost, a study of topotypes.

KEWOCHTHONIUS CHAMBERLIN

1. **Kewochthonius stanfordianus** (Chamberlin), new combination

Neochthonius stanfordianus CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 66.

California.*

2. *Kewochthonius paludis* (Chamberlin)

Neochthonius paludis CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 66.

Chthonius (*Chthonius*) *pearsei* HOFF, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 319.

?*Chthonius pearsi* (*sic!*), GERING, 1956, *in* Woodbury, Ecological check lists, Ecology of the Great Salt Lake Desert, Univ. Utah, p. 50.

Kewochthonius paludis, HOFF, 1951, Amer. Mus. Novitates, no. 1483, p. 4. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 157.

Georgia,* Mississippi, North Carolina, Tennessee. Gering's record from Utah is probably based on an incorrect determination.

MUNDOCHTHONIUS CHAMBERLIN

1. *Mundochthonius erosidens* Chamberlin

Mundochthonius erosidens CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 64.

California.*

2. *Mundochthonius montanus* Chamberlin

Mundochthonius montanus CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 65. HOFF, 1956, Amer. Mus. Novitates, no. 1772, p. 10.

Colorado,* New Mexico.

3. *Mundochthonius magnus* Chamberlin

Mundochthonius magnus CHAMBERLIN, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 65.

California.*

4. *Mundochthonius rossi* Hoff

Mundochthonius rossi HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 437. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 158.

Illinois,* Iowa, North Dakota, Wisconsin.

5. *Mundochthonius sandersoni* Hoff

Mundochthonius sandersoni Hoff, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 440. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 158.

Illinois.*

APOCHTHONIUS CHAMBERLIN

1. *Apochthonius moestus* (Banks)

Chthonius moestus Banks, 1891, Canadian Ent., vol. 23, p. 165.

Apochthonius (*Apochthonius*) *moestus*, Chamberlin, 1929, Canadian Ent., vol. 61, p. 153.

Apochthonius moestus, Chamberlin, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 67. Hoff, 1944, Trans. Illinois Acad. Sci., vol. 37, p. 125; 1951, Amer. Mus. Novitates, no. 1483, p. 4; 1956, Amer. Mus. Novitates, no. 1772, p. 2. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 158.

Arkansas, District of Columbia, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, New Mexico, New York,* North Carolina, Pennsylvania, Tennessee, Texas, Virginia. Report of this species from Washington (Beier, 1932a) is apparently an error based on the published record from Washington in the District of Columbia. The Tennessee record, based on specimens collected by Lewis J. Stannard in the vicinity of Reelfoot Lake, was inadvertently omitted from a previous publication in which a general statement of distribution was given in lieu of state records.

2. *Apochthonius intermedius* Chamberlin

Apochthonius (*Apochthonius*) *intermedius* Chamberlin, 1929, Canadian Ent., vol. 61, p. 153.

Washington.*

3. *Apochthonius occidentalis* Chamberlin

Apochthonius occidentalis Chamberlin, 1929, Ann. Mag. Nat. Hist., ser. 10, vol. 4, p. 67.

Oregon.*

4. *Apochthonius magnanimus* Hoff

Apochthonius magnanimus Hoff, 1956, Amer. Mus. Novitates, no. 1772, p. 4.

New Mexico.*

KLEPTOCHTHONIUS CHAMBERLIN

1. *Kleptochthonius crosbyi* (Chamberlin)

Apochthonius (Heterochthonius) crosbyi CHAMBERLIN, 1929, Canadian Ent., vol. 61, p. 153.

Heterochthonius crosbyi, HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 436.

Kleptochthonius crosbyi, CHAMBERLIN, 1949, Amer. Mus. Novitates, no. 1430, p. 4.

North Carolina.*

2. *Kleptochthonius multispinosus* (Hoff)

Heterochthonius multispinosus HOFF, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 314; 1949, Bull. Illinois Nat. Hist Surv., vol. 24, p. 434.

Kleptochthonius multispinosus, HOFF, 1951, Amer. Mus. Novitates, no. 1483, p. 5. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 159.

Alabama, Illinois, Kentucky, Mississippi, Missouri, North Carolina,* Tennessee.

CHAMBERLINOCHTHONIUS VACHON

1. *Chamberlinochthonius henroti* Vachon

Chamberlinochthonius Henroti VACHON, 1952, Notes biospéologiques, vol. 7, p. 107.

West Virginia.*

TRIBE LECHYTIINI CHAMBERLIN

LECHYTIA BALZAN

1. *Lechytia pacifica* (Banks)

Roncus pacificus BANKS, 1893, Canadian Ent., vol. 25, p. 66.

Lechytia pacifica, BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 13. HOFF, 1956, Amer. Mus. Novitates, no. 1772, p. 11.

California, New Mexico, Utah, Washington.*

SUBORDER DIPLOSPHYRONIDA CHAMBERLIN

SUPERFAMILY NEOBISIOIDEA CHAMBERLIN

FAMILY NEOBISIIDAE CHAMBERLIN

SUBFAMILY NEOBISIINAE CHAMBERLIN

NEOBISIUM CHAMBERLIN

1. *Neobisium (Neobisium) carolinense* (Banks)

Obisium carolinensis BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 12.

Neobisium (Neobisium) carolinensis, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 15.

Neobisium carolinensis, CHAMBERLIN, 1935, *in* Pratt, A manual of the common invertebrate animals, revised edition, Philadelphia, p. 480.

Neobisium (Neobisium) carolinensis, typical variety, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 16.

Neobisium (Neobisium) carolinensis, var. *tenuis* CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 16.

Neobisium carolinensis tenue, HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 161.

Georgia, Kentucky, North Carolina,* Pennsylvania, Tennessee, Virginia. While Banks apparently based the original species description on specimens from both North Carolina and Virginia, there is some advantage in herewith restricting the type locality to North Carolina, especially as the locality record for North Carolina precedes that for Virginia in the original description of the species. The advisability of recognizing as subspecies the two varieties described by Chamberlin may be questioned, especially as intergrades are said to occur. Specimens from Georgia and North Carolina have in part been definitely assigned to *N.* (*N.*) *carolinense carolinense,* while specimens assigned to *N.* (*N.*) *carolinense tenue* have been reported from Kentucky, North Carolina, and Tennessee.* The statement by Hoff and Bolsterli that *N.* (*N.*) *carolinense tenue* occurs in Georgia is apparently not supported by valid records.

2. *Neobisium (Parobisium) hesperum* Chamberlin

Neobisium (Parobisium) hesperum CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 19.

Oregon.*

MICROBISIUM CHAMBERLIN

1. *Microbisium brunneum* (Hagen)

Obisium brunneum HAGEN, 1869, Record of American entomology for the year 1868, p. 52.

Microbisium brunneum, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 20. BEIER, 1932, Das Tierreich, vol. 57, p. 139. HOFF, 1946, Bull. Chicago Acad. Sci., vol. 7, p. 494; 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 445. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 161.

Microbisium near *brunneum,* MCCLURE, 1943, Ecol. Monogr., vol. 13, p. 12.

District of Columbia, Georgia, Illinois, Iowa, Maine, Massachusetts,* Michigan, Missouri, New York, North Carolina, Ohio, Virginia, Wisconsin; Manitoba (Churchill area). In general this species appears to be distributed over a large area north of the Carolinas and east of the

Great Plains. Records from the District of Columbia, Georgia, and Virginia are based on nymphs and are of doubtful validity. Records from Utah and Arkansas are no doubt based on misidentifications as may be also, in part at least, the records from Iowa and Michigan. Beier's record from Washington is no doubt based on a questionable report of the species from the District of Columbia. The record from Manitoba is probably based on *M. brunneum*, although the species was determined by Chamberlin and reported by McClure as "near *brunneum*."

2. *Microbisium parvulum* (Banks)

Obisium parvulum BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 12.

Microbisium parvulum, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 21. HOFF, 1946, Bull. Chicago Acad. Sci., vol. 7, p. 495; 1956, Amer. Mus. Novitates, no. 1780, p. 3. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 161.

Colorado, New Mexico,* Oklahoma, Utah. The original source of the type specimens is unknown. Obviously Banks was in error when he thought that the type specimens were from Florida. Records of this species from Minnesota, New York, and North Carolina are probably based on specimens of *M. confusum*. As the locality of Banks's specimens is not known, Bernalillo County, New Mexico, is declared the designated type locality.

3. *Microbisium confusum* Hoff

Microbisium confusum HOFF, 1946, Bull. Chicago Acad. Sci., vol. 7, p. 496; 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 446. WRAY, 1950, Insects of North Carolina, second supplement, Raleigh, p. 42. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 160.

Microbisium brunneum HOFF (*non* Hagen), 1945, Trans. Amer. Micros. Soc., vol. 64, p. 34.

Arkansas, Colorado, Illinois,* Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, New York, North Carolina, North Dakota, Ohio, Tennessee, Wisconsin. The New York record is new, being based on specimens (often accompanied by specimens of *M. brunneum*) collected by Roy Latham on Long Island.

SUBFAMILY IDEOBISIINAE CHAMBERLIN

HALOBISIUM CHAMBERLIN

1. *Halobisium occidentale* Beier

Halobisium occidentale BEIER, 1931, Mitt. Zool. Mus. Berlin, vol. 17, p. 299.

Halobisium orientale CHAMBERLIN (*non* Redikorzev), 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 35.

California.*

MICROCREAGRIS BALZAN

1. *Microcreagris theveneti* (Simon)

Obisium theveneti SIMON, 1878, Ann. Soc. Ent. France, ser. 5, vol. 8, p. 156.

Ideobisium threveneti, BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 11; 1901, Proc. U. S. Natl. Mus., vol. 23, p. 588; 1911, Pomona College Jour. Ent., vol. 3, p. 639.

Microcreagris theveneti, BEIER, 1932, Das Tierreich, vol. 58, p. 147.

Arizona, California,* Oregon, Washington. Except for the type locality, it is possible that at least some records are based on incorrectly determined specimens.

2. *Microcreagris macilenta* (Simon)

Obisium macilentum SIMON, 1878, Ann. Soc. Ent. France, ser. 5, vol. 8, p. 157. BANKS, 1911, Pomona College Jour. Ent., vol. 3, p. 639.

Microcreagris macilenta, BEIER, 1932, Das Tierreich, vol. 57, p. 154.

Microcreagris duncani CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 33.

California.*

3. *Microcreagris rufula* (Banks)

Olpium rufulum BANKS, 1891, Canadian Ent., vol. 23, p. 166.

Ideobisium rufulum, BANKS, 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 42.

Microcreagris rufulum, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 30.

Microcreagris rufula, HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 162.

District of Columbia,* Kentucky, Texas, Virginia. The Texas record by Banks may be based on a misidentification.

4. *Microcreagris tacomensis* (Ellingsen)

Ideobisium tacomense ELLINGSEN, 1909, Boll. Lab. Zool. Portici, vol. 3, p. 219.

Microcreagris tacomensis, BEIER, 1932, Das Tierreich, vol. 57, p. 154.

Washington.*

5. *Microcreagris magna* (Banks)

Ideobisium magnum Banks, 1909, Canadian Ent., vol. 41, p. 306; 1911, Pomona College Jour. Ent., vol. 3, p. 639.
Microcreagris magnum, Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 28.

California.*

6. *Microcreagris sequoiae* Chamberlin

Microcreagris sequoiae Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 28.

California.*

7. *Microcreagris cingara* Chamberlin

Microcreagris cingara Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, pp. 29, 35.

Utah.* An Oregon record based on the tentative identification of a somewhat atypical female and a Washington record based wholly on nymphs probably pertain to other species of *Microcreagris.*

8. *Microcreagris atlantica* Chamberlin

Microcreagris atlantica Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 29. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 163.

Mississippi, North Carolina.*

9. *Microcreagris hespera* Chamberlin

Microcreagris hespera Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 31.

California.*

10. *Microcreagris phyllisae* Chamberlin

Microcreagris phyllisae Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 31.

California.*

11. *Microcreagris thermophila* Chamberlin

Microcreagris thermophila Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 32.

California.*

12. *Microcreagris laurae* Chamberlin

Microcreagris laurae CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 32.

California.*

13. *Microcreagris chamberlini* Beier

Microcreagris chamberlini BEIER, 1931, Mitt. Zool. Mus. Berlin, vol. 17, p. 301.

Microcreagris macilentum CHAMBERLIN (*non* Simon), 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 31.

California.*

14. *Microcreagris ozarkensis* Hoff

Microcreagris ozarkensis HOFF, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 34.

Arkansas.*

15. *Microcreagris lata* Hoff

Microcreagris lata HOFF, 1945, Trans. Amer. Micros. Soc., vol. 46, p. 323.

North Carolina.*

16. *Microcreagris nigrescens* Chamberlin

Microcreagris nigrescens CHAMBERLIN, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 265.

California.*

17. *Microcreagris laudabilis* Hoff

Microcreagris laudabilis HOFF, 1956, Amer. Mus. Novitates, no. 1780, p. 4.

New Mexico.*

18. *Microcreagris? cavicola* (Packard)

Obisium caricola PACKARD, 1884, Amer. Nat., vol. 18, p. 202.

Obisium cavicola, PACKARD, 1888, Mem. Natl. Acad. Sci., Washington, vol. 4, pt. 1, p. 42.

Microcreagris? cavicola, BEIER, 1932, Das Tierreich, vol. 57, p. 157.

Virginia (New Market Cave*).

19. *Microcreagris? californica* (Banks)

Atemnus californicus Banks, 1891, Canadian Ent., vol. 23, p. 165.
Microcreagris? californica, Beier, 1932, Das Tierreich, vol. 57, p. 157.

California.*

20. *Microcreagris? tibialis* (Banks)

Ideobisium tibiale Banks, 1909, Canadian Ent., vol. 41, p. 306.
Syarinus tibialis, Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 40. Beier, 1932, Das Tierreich, vol. 57, p. 164.
Microcreagris? tibialis, Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 8.

Colorado.*

21. **Microcreagris? magna** (Ewing), new combination

Blothrus magnus Ewing, 1911, Jour. New York Ent. Soc., vol. 19, p. 76. Banks, 1911, Pomona College Jour. Ent., vol. 3, p. 640.

California.* If it is verified that both Ewing's *Blothrus magnus* and Banks's *Ideobisium magnum* are assignable to the genus *Microcreagris,* then *M. magna* (Ewing) is a junior secondary homonym and *magna* in this combination must be replaced by a new name.

FAMILY SYARINIDAE CHAMBERLIN

SUBFAMILY SYARININAE CHAMBERLIN

SYARINUS CHAMBERLIN

1. *Syarinus obscurus* (Banks)

Ideoroncus obscurus Banks, 1893, Canadian Ent., vol. 25, p. 66; 1895, Jour. New York Ent. Soc., vol. 3, p. 11.
Ideobisium obscurum, Ellingsen, 1908, Canadian Ent., vol. 40, p. 163.
Syarinus obscurus, Chamberlin, 1925, California Univ. Publ., Tech. Bull., College Agr., Ent., vol. 3, p. 330; 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 39. Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 10.

California, Montana, New Mexico, Washington,* Wyoming; British Columbia.

2. *Syarinus granulatus* Chamberlin

Syarinus granulatus Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 39. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 163. Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 16.

Colorado,* New Mexico, Wisconsin.

3. *Syarinus honestus* Hoff

Syarinus honestus Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 14.

New Mexico.*

HYARINUS CHAMBERLIN

1. *Hyarinus hesperus* Chamberlin

Hyarinus hesperus Chamberlin, 1925, California Univ. Publ., Tech. Bull., College Agr., Ent., vol. 3, p. 329.

California.*

SUBFAMILY CHITRELLINAE BEIER

CHITRELLA BEIER

1. *Chitrella transversa* (Banks)

Obisium transversum Banks, 1909, Canadian Ent., vol. 41, p. 307.
Microcreagris? transversa, Beier, 1932, Das Tierreich, vol. 57, p. 157.
Chitrella transversa, Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 21.

New Mexico.*

2. *Chitrella cala* (Chamberlin)

Chitra cala Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 41.
Chitrella cala, Beier, 1932, Das Tierreich, vol. 57, p. 165.

California.*

AGLAOCHITRA CHAMBERLIN

1. *Aglaochitra rex* Chamberlin

Aglaochitra rex Chamberlin, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 269.

California.*

FAMILY IDEORONCIDAE CHAMBERLIN

SUBFAMILY IDEORONCINAE CHAMBERLIN

ALBIORIX CHAMBERLIN

1. *Albiorix mexicanus* (Banks)

Ideoroncus mexicanus Banks, 1898, Proc. California Acad. Sci., ser. 3, vol. 1, p. 289.
Albiorix mexicanus, Chamberlin, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 45.

California, Utah.

2. *Albiorix parvidentatus* Chamberlin

Albiorix parvidentatus CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 45.

California.*

3. *Albiorix edentatus* Chamberlin

Albiorix edentatus CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 46.

California.*

4. *Albiorix retrodentatus* Hoff

Albiorix retrodentatus HOFF, 1945, Amer. Mus. Novitates, no. 1277, p. 6; 1956, Amer. Mus. Novitates, no. 1780, p. 25.

New Mexico.

SUPERFAMILY GARYPOIDEA CHAMBERLIN

FAMILY GARYPIDAE HANSEN

SUBFAMILY GARYPINAE SIMON

GARYPUS L. KOCH

1. *Garypus floridensis* Banks

Garypus floridensis BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 9. HOFF, 1946, Jour. Washington Acad. Sci., vol. 36, p. 195.

Florida.*

2. *Garypus californicus* Banks

Garypus californicus BANKS, 1909, Canadian Ent., vol. 41, p. 305. BEIER, 1932, Das Tierreich, vol. 57, p. 219.

California.*

LARCA CHAMBERLIN

1. *Larca granulata* (Banks)

Garypus granulatus BANKS, 1891, Canadian Ent., vol. 23, p. 163.
Larca granulata, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 616. HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 447. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 163.

Illinois, New York,* Tennessee.

ARCHEOLARCA HOFF AND CLAWSON

1. *Archeolarca rotunda* Hoff and Clawson

Archeolarca rotunda HOFF AND CLAWSON, 1952, Amer. Mus. Novitates, no. 1585, p. 3. HOFF, 1956, Amer. Mus. Novitates, no. 1780, p. 44.

New Mexico, Utah.*

FAMILY OLPIIDAE CHAMBERLIN

SUBFAMILY OLPIINAE BANKS

PACHYOLPIUM BEIER

1. *Pachyolpium? obscurum* (Banks)

Olpium obscurum BANKS, 1893, Canadian Ent., vol. 25, p. 65.
Pachyolpium? obscurum, BEIER, 1932, Das Tierreich, vol. 57, p. 196.

Florida.*

2. *Pachyolpium? minutum* (Banks)

Olpium minutum BANKS, 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 42.
Pachyolpium? minutum, BEIER, 1932, Das Tierreich, vol. 57, p. 196.

Texas.*

HESPEROLPIUM CHAMBERLIN

1. *Hesperolpium slevini* (Chamberlin)

Olpium slevini CHAMBERLIN, 1923, Proc. California Acad. Sci., ser. 4, vol. 12, p. 363.
Hesperolpium sleveni, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 607.

California.

SUBFAMILY GARYPININAE DADAY

NEOAMBLYOLPIUM HOFF

1. *Neoamblyolpium alienum* Hoff

Neoamblyolpium alienum HOFF, 1956, Amer. Mus. Novitates, no. 1780, p. 28.

New Mexico.*

PSEUDOGARYPINUS BEIER

1. *Pseudogarypinus marianae* (Chamberlin)

Garypinus marianae CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 591.
Pseudogarypinus marianae, BEIER, 1932, Das Tierreich, vol. 57, p. 206. HOFF, 1956, Amer. Mus. Novitates, no. 1780, p. 27.

California,* Utah.

2. *Pseudogarypinus? frontalis* (Banks)

Olpium frontalis BANKS, 1909, Canadian Ent., vol. 41, p. 307.
Serianus? frontalis, BEIER, 1932, Das Tierreich, vol. 57, p. 213.
Pseudogarypinus? frontalis, HOFF, 1956, Amer. Mus. Novitates, no. 1780, p. 33.

New Mexico.* It is possible that *Garypinus marianae* Chamberlin is a synonym of *Olpium frontalis* Banks, but this cannot be established until Banks's type specimens have been critically examined.

SERIANUS CHAMBERLIN

1. *Serianus serianus* (Chamberlin)

Garypinus serianus CHAMBERLIN, 1923, Proc. California Acad. Sci., ser. 4, vol. 12, p. 367.

Serianus serianus, CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 595.

Utah. The Utah record is based on a single male that may be incorrectly determined.

2. *Serianus dolosus* Hoff

Serianus dolosus HOFF, 1956, Amer. Mus. Novitates, no. 1780, p. 35.

New Mexico.*

FAMILY MENTHIDAE CHAMBERLIN

MENTHUS CHAMBERLIN

1. *Menthus californicus* Chamberlin

Menthus californicus CHAMBERLIN, 1930, Ann. Mag. Nat. Hist., ser. 10, vol. 5, p. 587.

California.*

SUBORDER MONOSPHYRONIDA CHAMBERLIN

SUPERFAMILY FEAELLOIDEA CHAMBERLIN

FAMILY PSEUDOGARYPIDAE CHAMBERLIN

PSEUDOGARYPUS ELLINGSEN

1. *Pseudogarypus bicornis* (Banks)

Garypus bicornis BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 8.

Pseudogarypus bicornis, HOFF, 1946, Jour. Washington Acad. Sci., vol. 36, p. 198.

non Pseudogarypus bicornis, CHAMBERLIN, 1923, Ent. News, vol. 34, p. 162; 1931, Stanford Univ. Publs., Biol. Sci., vol. 7, p. 232. BEIER, 1932, Das Tierreich, vol. 57, p. 239.

?Pseudogarypus bicornis, ELLINGSEN, 1909, Boll. Lab. Zool. Portici, vol. 3, p. 218.

Wyoming.* Ellingsen's record from California is probably based on a specimen of *Cerogarypus agassizi*. The record from Utah is based on a misidentified specimen that has been taken by Jacot as the type of

Cerogarypus agassizi. The Idaho record is no doubt based on an error in identification. It has been impossible to locate the original report on which Beier based his record of this species from Colorado.

2. *Pseudogarypus hesperus* Chamberlin

Pseudogarypus hesperus CHAMBERLIN, 1931, Stanford Univ. Publs., Biol. Sci., vol. 7, p. 232.

Washington.*

3. *Pseudogarypus banksi* Jacot

Pseudogarypus banksi JACOT, 1938, Occas. Papers Boston Soc. Nat. Hist., vol. 8, p. 302.

New Hampshire.*

CEROGARYPUS JACOT

1. *Cerogarypus agassizi* Jacot

Cerogarypus agassizi JACOT, 1938, Occas. Papers Boston Soc. Nat. Hist., vol. 8, p. 301.

Pseudogarypus bicornis CHAMBERLIN (*non* Banks), 1923, Ent. News, vol. 34, p. 162; 1931, Stanford Univ. Publs., Biol. Sci., vol. 7, p. 232.

Pseudogarypus bicornis, ELLINGSEN, 1909, Boll. Lab. Zool. Portici, vol. 3, p. 218.

Idaho, Utah.* Ellingsen's record of *Pseudogarypus bicornis* from California is probably based on a specimen of *Cerogarypus agassizi.*

SUPERFAMILY CHEIRIDIOIDEA CHAMBERLIN

FAMILY CHEIRIDIIDAE CHAMBERLIN

CHEIRIDIUM MENGE

1. *Cheiridium insperatum* Hoff and Clawson

Cheiridium insperatum HOFF AND CLAWSON, 1952, Amer. Mus. Novitates, no. 1585, p. 8.

Utah.*

2. *Cheiridium firmum* Hoff

Cheiridium firmum HOFF, 1953, Trans. Illinois Acad. Sci., vol. 45 (1952), p. 188.

Illinois.*

APOCHEIRIDIUM CHAMBERLIN

1. *Apocheiridium ferumoides* Chamberlin

Apocheiridium ferumoides CHAMBERLIN, 1924, Pan-Pacific Ent., vol. 1, p. 35; 1932, Pan-Pacific Ent., vol. 8, p. 139. GERING, 1956, *in* Woodbury, Ecological check lists, Ecology of the Great Salt Lake Desert, Univ. Utah, p. 50.

California,* Utah.

2. *Apocheiridium mormon* Chamberlin

Apocheiridium mormon CHAMBERLIN, 1924, Pan-Pacific Ent., vol. 1, p. 36; 1932, Pan-Pacific Ent., vol. 8, p. 138.

Idaho,* Utah.

3. *Apocheiridium inexpectum* Chamberlin

Apocheiridium inexpectum CHAMBERLIN, 1932, Pan-Pacific Ent., vol. 8, p. 139.

California.*

4. *Apocheiridium stannardi* Hoff

Apocheiridium stannardi HOFF, 1953, Trans. Illinois Acad. Sci., vol. 45 (1952), p. 193. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 164.

Illinois.*

FAMILY STERNOPHORIDAE CHAMBERLIN

STERNOPHORUS CHAMBERLIN

1. *Sternophorus paludis* Chamberlin

Sternophorus paludis CHAMBERLIN, 1932, Pan-Pacific Ent., vol. 8, p. 142. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 164.

Arkansas, Florida* (holotype), Georgia (allotype), Illinois, Mississippi. It appears advantageous to restrict the type locality to the locality of the holotype.

GARYOPS BANKS

1. *Garyops depressa* Banks

Garyops depressa BANKS, 1909, Canadian Ent., vol. 41, p. 305.

Florida.*

SUPERFAMILY CHELIFEROIDEA CHAMBERLIN

FAMILY ATEMNIDAE CHAMBERLIN

SUBFAMILY ATEMNINAE BEIER

PARATEMNUS BEIER

1. *Paratemnus elongatus* (Banks)

Atemnus elongatus Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 10.

Paratemnus elongatus, Hoff, 1946, Proc. New England Zoöl. Club, vol. 23, p. 110.

Florida.*

FAMILY CHERNETIDAE MENGE

SUBFAMILY LAMPROCHERNETINAE BEIER

LAMPROCHERNES TÖMÖSVARY

1. *Lamprochernes oblongus* (Say)

Chelifer oblongus Say, 1821, Jour. Acad. Nat. Sci., Philadelphia, vol. 2, p. 64.

Chelanops oblongus, Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 5. Pratt, 1916, A manual of the common invertebrate animals, Chicago, p. 410.

?*Chelanops oblongus,* Banks, 1911, Pomona College Jour. Ent., vol. 3, p. 638.

Lamprochernes oblongus, Beier, 1932, Das Tierreich, vol. 58, p. 84. Hoff, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 37; 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 450. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 165.

Arkansas, District of Columbia, Florida, Georgia, Illinois,* Indiana, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, Nebraska, New York, North Carolina, Ohio, Pennsylvania, Texas, Virginia. Other than "North America," Say did not give a locality for his type specimens. In 1949, Hoff designated as the neotype a male from Illinois. Records from California are no doubt based on misidentifications.

2. *Lamprochernes godfreyi* (Kew)

Chelifer (Chernes) godfreyi Kew, 1911, Proc. Royal Irish Acad., vol. 29, p. 41 (cited from Beier, 1932, Das Tierreich, vol. 58, p. 86).

Lamprochernes godfreyi, Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 166.

Indiana, Kansas.

3. *Lamprochernes ellipticus* Hoff

Lamprochernes ellipticus Hoff, 1944, Amer. Mus. Novitates, no. 1271, p. 1; 1956, Amer. Mus. Novitates, no. 1800, p. 5.

New Mexico.

4. *Lamprochernes minor* Hoff

Lamprochernes minor HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 453. LEVI, 1953, Canadian Ent., vol. 85, p. 59. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 166.

Illinois,* Minnesota, North Dakota, Wisconsin.

LUSTROCHERNES BEIER

1. *Lustrochernes grossus* (Banks)

Chelanops grossus BANKS, 1893, Canadian Ent., vol. 25, p. 65; 1903, Proc. U. S. Natl. Mus., vol. 25, p. 220.

Lamprochernes grossus, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 475.

Lustrochernes grossus, HOFF, 1956, Amer. Mus. Novitates, no. 1800, p. 10.

Arizona, Colorado,* New Mexico.

2. *Lustrochernes pennsylvanicus* (Ellingsen)

Chelifer communis var. *pennsylvanicus* ELLINGSEN, 1910, Mitt. Zool. Mus. Berlin, vol. 4, p. 366.

Lustrochernes pennsylvanicus, HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 167.

Louisiana, Mississippi, Pennsylvania.*

3. *Lustrochernes? acuminatus* (Simon)

Chelifer (*Chelanops*) *acuminatus* SIMON, 1878, Ann. Soc. Ent. France, ser. 5, vol. 8, p. 156.

Chelanops acuminatus, BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 5.

California,* Washington.

4. *Lustrochernes? floridanus* (Tullgren)

Atemnus floridanus TULLGREN, 1900, Ent. Tidskr., vol. 21, p. 153.

Florida.*

PYCNOCHERNES BEIER

1. *Pycnochernes linsdalei* Chamberlin

Pycnochernes linsdalei CHAMBERLIN, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 275.

California.*

2. *Pycnochernes foxi* Chamberlin

Pycnochernes foxi CHAMBERLIN, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 278.

Idaho.*

GENUS?

1. Genus? *hirsutus* (Banks)

Atemnus hirsutus BANKS, 1914, Jour. Ent. Zool., Pomona College, vol. 6, p. 203.

California.* From Banks's figure, the species probably belongs to an undescribed genus in the Lamprochernetinae.

SUBFAMILY CHERNETINAE BEIER

HESPEROCHERNES CHAMBERLIN

1. *Hesperochernes sanborni* (Hagen)

Chernes Sanborni HAGEN, 1869, Record of American entomology for the year 1868, p. 51.

Chelanops sanborni, COOLIDGE, 1908, Psyche, vol. 15, p. 111. EWING, 1911, Jour. New York Ent. Soc., vol. 19, p. 79. HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, pp. 456, 466.

Hesperochernes sanborni, HOFF, 1946, Proc. New England Zoöl. Club, vol. 23, p. 100.

Massachusetts,* New York. Records by Coolidge for Indiana and by Ewing for Illinois are very probably based on incorrectly identified specimens.

2. *Hesperochernes pallipes* (Banks)

Chelanops pallipes BANKS, 1893, Canadian Ent., vol. 25, p. 64. COOLIDGE, 1908, Psyche, vol. 15, p. 111.

Hesperochernes pallipes, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 506.

California.* Reports of this species from Colorado are probably based on an error made by Coolidge.

3. *Hesperochernes unicolor* (Banks)

Chelanops unicolor BANKS, 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 39.

Hesperochernes unicolor, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 511. HOFF AND CLAWSON, 1952, Amer. Mus. Novitates, no. 1585, p. 23.

Texas.*

4. *Hesperochernes laurae* Chamberlin

Hesperochernes laurae CHAMBERLIN, 1924, Pan-Pacific Ent., vol. 1, p. 90.

California.*

5. *Hesperochernes tamiae* Beier

Hesperochernes tamiae BEIER, 1930, Ann. naturhist. Mus. Wien, vol. 44, p. 214. PROCTER, 1946, Biological survey of the Mount Desert region, pt. 7, p. 510. HOFF AND CLAWSON, 1952, Amer. Mus. Novitates, no. 1585, p. 15.

Maine, New York,* Vermont.

6. *Hesperochernes montanus* Chamberlin

Hesperochernes montanus CHAMBERLIN, 1935, Pan-Pacific Ent., vol. 11, p. 37.

Montana.*

7. *Hesperochernes canadensis* Hoff

Hesperochernes canadensis HOFF, 1945, Amer. Mus. Novitates, no. 1273, p. 1.

Alberta.*

8. *Hesperochernes thomomysi* Hoff

Hesperochernes thomomysi HOFF, 1948, Jour. Washington Acad. Sci., vol. 38, p. 341.

California.*

9. *Hesperochernes utahensis* Hoff and Clawson

Hesperochernes utahensis HOFF AND CLAWSON, 1952, Amer. Mus. Novitates, no. 1585, p. 15. HOFF, 1956, Amer. Mus. Novitates, no. 1800, p. 32.

New Mexico, Utah.*

10. *Hesperochernes riograndensis* Hoff and Clawson

Hesperochernes riograndensis HOFF AND CLAWSON, 1952, Amer. Mus. Novitates, no. 1585, p. 19.

New Mexico.*

11. *Hesperochernes mimulus* Chamberlin

Hesperochernes mimulus CHAMBERLIN, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 292.

California.*

12. *Hesperochernes molestus* Hoff

Hesperochernes molestus Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 33.

New Mexico.*

13. **Hesperochernes? paludis** (Moles), new combination

Chelanops paludis Moles, 1914, Jour. Ent. Zool., Pomona College, vol. 6, pp. 81, 193.

California.*

PSEUDOZAONA BEIER

1. *Pseudozaona mirabilis* (Banks)

Chelifer mirabilis Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 4.

Pseudozaona mirabilis, Hoff, 1946, Jour. Washington Acad. Sci., vol. 36, p. 201.

Kentucky (Indian Cave,* Barren County), Virginia.

2. *Pseudozaona occidentalis* Hoff and Bolsterli

Pseudozaona occidentalis Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 170.

Arkansas.*

CHELANOPS GERVAIS

1. *Chelanops affinis* Banks

Chelanops affinis Banks, 1894, *in* Hubbard, Insect life, vol. 6, p. 314. Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 503.

Florida.*

2. *Chelanops? corticis* Ewing

Chelanops corticis Ewing, 1911, Jour. New York Ent. Soc., vol. 19, pp. 75, 79.

Genus? *corticis,* Hoff, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 484.

? = *Reginachernes lymphatus,* Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 176.

Illinois.*

ILLINICHERNES HOFF

1. *Illinichernes distinctus* Hoff

Illinichernes distinctus HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 481. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 169.

Illinois,* Indiana, Maryland.

REGINACHERNES HOFF

1. *Reginachernes ewingi* Hoff

Reginachernes ewingi HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 466.

Illinois.*

2. *Reginachernes lymphatus* Hoff

Reginachernes lymphatus HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 467. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 177.

Illinois,* Nebraska. This may be *Chelanops corticis* Ewing.

ACUMINOCHERNES HOFF

1. *Acuminochernes crassopalpus* (Hoff)

Hesperochernes crassopalpus HOFF, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 43.

Acuminochernes crassopalpus, HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 477. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 174.

Arkansas,* Illinois, Kansas.

PHOBEROCHEIRUS CHAMBERLIN

1. *Phoberocheirus cribellus* Chamberlin

Phoberocheirus cribellus CHAMBERLIN, 1949, Amer. Mus. Novitates, no. 1430, p. 8.

Virginia.*

MIROCHERNES BEIER

1. *Mirochernes dentatus* (Banks)

Chelanops dentatus BANKS, 1895, Jour. New York Ent. Soc., vol. 3, pp. 6, 12. BRIMLEY, 1938, Insects of North Carolina, p. 497.

Mirochernes dentatus, HOFF, 1945, Trans. Amer. Micros. Soc., vol. 64, p.

49. CHAMBERLIN, 1949, Amer. Mus. Novitates, no. 1430, p. 8. HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 478. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 176.

Arkansas, Florida?,* Illinois, Indiana, North Carolina, Virginia. Banks thought that the original specimen on which he described the species came from Florida. As the species has not been otherwise reported from Florida, it seems probable that one of the eastern states, perhaps Virginia, is the actual type locality. However, until further studies have indicated clearly that *Mirochernes dentatus* does not occur in Florida, it seems advisable to continue considering Florida as the type locality.

DINOCHEIRUS CHAMBERLIN

1. *Dinocheirus pallidus* (Banks)

Chernes pallidus BANKS, 1890, Canadian Ent., vol. 22, p. 152.

Chelanops pallidus, BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 8. COOLIDGE, 1908, Psyche, vol. 5, p. 112.

Hesperochernes pallidus, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 509.

Dinocheirus pallidus, HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 472.

Arkansas, Illinois, Indiana, New York.*

2. *Dinocheirus tristis* (Banks)

Chelanops tristis BANKS, 1891, Canadian Ent., vol. 23, p. 163.

Dinocheirus tristis HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 532.

New York.*

3. *Dinocheirus tumidus* (Banks)

Chelanops tumidus BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 7.

Dinocheirus tumidus, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 529.

Florida.*

4. *Dinocheirus validus* (Banks)

Chelanops validus BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 7.

Dinocheirus validus, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 526; 1956, Amer. Mus. Novitates, no. 1800, p. 59.

California,* New Mexico.

5. *Dinocheirus dorsalis* (Banks)

Chelanops dorsalis Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 8.
Dinocheirus dorsalis, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 523.

California.*

6. *Dinocheirus arizonensis* (Banks)

Chelanops arizonensis Banks, 1901, Proc. U. S. Natl. Mus., vol. 23, p. 589.
Dinocheirus arizonensis, Hoff, 1946, Jour. Washington Acad. Sci., vol. 36, p. 200.

Arizona.*

7. *Dinocheirus aequalis* (Banks)

Chelanops aequalis Banks, 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 41.
Dinocheirus aequalis, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 520; 1956, Amer. Mus. Novitates, no. 1800, p. 61.

New Mexico, Texas.*

8. *Dinocheirus obesus* (Banks)

Chelanops obesus Banks, 1909, Jour. New York Ent. Soc., vol. 17, p. 146.
Dinocheirus obesus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 517.

Arizona.*

9. *Dinocheirus partitus* (Banks)

Chelanops partitus Banks, 1909, Canadian Ent., vol. 41, p. 304.
Dinocheirus partitus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 514.

Arizona.*

10. *Dinocheirus solus* Hoff

Dinocheirus solus Hoff, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 474.
Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 175.

Illinois.*

11. *Dinocheirus stercoreus* Turk

Dinocheirus stercoreus Turk, 1949, Ann. Mag. Nat. Hist., ser. 12, vol. 2, p. 120.

Texas.*

12. *Dinocheirus sicarius* Chamberlin

Dinocheirus sicarius Chamberlin, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 279. Gering, 1956, *in* Woodbury, Ecological check lists, Ecology of the Great Salt Lake Desert, Univ. Utah, p. 50.

California,* Utah.

13. *Dinocheirus texanus* Hoff and Clawson

Dinocheirus texanus Hoff and Clawson, 1952, Amer. Mus. Novitates, no. 1585, p. 27.

Texas.*

14. *Dinocheirus venustus* Hoff and Clawson

Dinocheirus venustus Hoff and Clawson, 1952, Amer. Mus. Novitates, no. 1585, p. 31. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 174.

Kansas,* Missouri.

15. *Dinocheirus astutus* Hoff

Dinocheirus astutus Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 44.

New Mexico.*

16. *Dinocheirus athleticus* Hoff

Dinocheirus athleticus Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 48.

New Mexico.*

17. *Dinocheirus imperiosus* Hoff

Dinocheirus imperiosus Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 54.

New Mexico.*

18. **Dinocheirus? serratus** (Moles), new combination

Chelanops serratus Moles, 1914, Jour. Ent. Zool., Pomona College, vol. 6, p. 193.

California.*

DENDROCHERNES BEIER

1. *Dendrochernes morosus* (Banks)

Chelanops morosus BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 7.

Dendrochernes morosus, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 536.

Michigan.*

2. **Dendrochernes instabilis** (Chamberlin), new combination

Pachycheirus instabilis CHAMBERLIN, 1934, Pan-Pacific Ent., vol. 10, p. 126.

Montana.*

3. *Dendrochernes crassus* Hoff

Dendrochernes crassus HOFF, 1956, Amer. Mus. Novitates, no. 1800, p. 39.

New Mexico.*

CHRYSOCHERNES HOFF

1. *Chrysochernes elatus* Hoff

Chrysochernes elatus HOFF, 1956, Amer. Mus. Novitates, no. 1800, p. 27.

New Mexico.*

WYOCHERNES HOFF

1. *Wyochernes hutsoni* Hoff

Wyochernes hutsoni HOFF, 1949, Trans. Amer. Micros. Soc., vol. 68, p. 42.

Wyoming.*

ZAONA CHAMBERLIN

1. *Zaona biseriatum* (Banks)

Chelifer biseriatum BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 3. BERGER, 1905, Ohio Nat., vol. 6, p. 408.

Zaona biseriatum, CHAMBERLIN, 1925, California Univ. Publ., Tech. Bull., College Agr., Ent., vol. 3, p. 332.

Florida.* Berger's record from Ohio is no doubt based on a misidentification.

PARACHERNES CHAMBERLIN

1. *Parachernes latus* (Banks)

Chelanops latus BANKS, 1893, Canadian Ent., vol. 25, p. 64.

Parachernes latus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 478.

Florida.*

2. *Parachernes latimanus* (Banks)

Chelanops latimanus Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 6.
Parachernes latimanus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 482.

Florida.*

3. *Parachernes virginica* (Banks)

Chelanops virginica Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 6. Brimley, 1942, Supplement to insects of North Carolina, p. 38.
Parachernes virginica, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 486.

North Carolina, Virginia.*

4. *Parachernes tumimanus* (Banks)

Chelanops tumimanus Banks, 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 40.
Parachernes tumimanus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 494.

Texas.*

5. *Parachernes pulchellus* (Banks)

Chelanops pulchellus Banks, 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 41.
Parachernes pulchellus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 492.

Texas.*

6. *Parachernes diversus* (Banks)

Chelanops diversus Banks, 1909, Canadian Ent., vol. 41, p. 304.
Parachernes diversus, Hoff, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 483.

Florida.*

7. *Parachernes squarrosus* Hoff

Parachernes squarrosus Hoff, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 456. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 169.

Arkansas, Illinois,* Indiana.

8. *Parachernes nubilis* Hoff

Parachernes nubilis Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 14.

New Mexico.*

9. **Parachernes? floridae** (Balzan), new combination

Chelifer Floridae Balzan, 1891, Ann. Soc. Ent. France, vol. 60, p. 524.
Chelanops floridae, Banks, 1895, Jour. New York Ent. Soc., vol. 3, p. 5. Ewing, 1911, Jour. New York Ent. Soc., vol. 19, p. 76.
Neochernes floridae, Beier, 1932, Das Tierreich, vol. 58, p. 165.

Florida.* While this new combination is entirely tentative, assignment of Balzan's species to *Parachernes* appears more logical than assignment to either *Chelanops* or *Neochernes.*

PSELAPHOCHERNES BEIER

1. *Pselaphochernes scorpioides* (Hermann)

Chelifer scorpioides Hermann, 1804, Mémoire aptérologique, Strasbourg, p. 116 (cited from Beier, 1932, Das Tierreich, vol. 58, p. 131).
Pselaphochernes scorpioides, Beier, 1932, Das Tierreich, vol. 58, p. 131. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 168.

Kentucky.

2. *Pselaphochernes parvus* Hoff

Pselaphochernes parvus Hoff, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 38; 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 461. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 168.

Arkansas,* Illinois, Tennessee, Wisconsin.

3. *Pselaphochernes becki* Hoff and Clawson

Pselaphochernes becki Hoff and Clawson, 1952, Amer. Mus. Novitates, no. 1585, p. 24.

Utah.*

TYCHOCHERNES HOFF

1. *Tychochernes inflatus* Hoff

Tychochernes inflatus Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 22.

New Mexico.*

FAMILY CHELIFERIDAE HAGEN

SUBFAMILY CHELIFERINAE SIMON

TRIBE CHELIFERINI CHAMBERLIN

CHELIFER GEOFFROY

1. *Chelifer cancroides* (Linnaeus)

Acarus cancroides LINNAEUS, 1758, Systema naturae, ed. 10, p. 616.

Chelifer cancroides, HAGEN, 1869, Record of American entomology for the year 1868, p. 51. PACKARD, 1888, Mem. Natl. Acad. Sci., Washington, vol. 4, pt. 1, p. 43. BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 3. ELLINGSEN, 1908, Canadian Ent., vol. 40, p. 163; 1909, Mitt. Zool. Mus. Berlin, vol. 4, p. 384. BRIMLEY, 1938, Insects of North Carolina, p. 497. PROCTER, 1946, Biological survey of the Mount Desert region, pt. 7, p. 510. HOFF, 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 486; 1950, Amer. Mus. Novitates, no. 1448, p. 1; 1956, Amer. Mus. Novitates, no. 1804, p. 3. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 177.

Chelifer cancroides var. *dentatus* EWING, 1911, Jour. New York Ent. Soc., vol. 19, p. 73.

California, Colorado, District of Columbia, Georgia, Idaho, Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Texas, Utah, Wisconsin, Wyoming; British Columbia, Ontario; Alaska.

PARACHELIFER CHAMBERLIN

1. *Parachelifer scabriculus* (Simon)

Chelifer scabriculus SIMON, 1878, Ann. Soc. Ent. France, ser. 5, vol. 8, p. 154.

Chelifer scabrisculus, BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 4.

Chelifer scabrisculis, BANKS, 1903, Proc. U. S. Natl. Mus., vol. 25, p. 220.

Parachelifer scabriculus, CHAMBERLIN, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 300. HOFF, 1956, Amer. Mus. Novitates, no. 1804, p. 7.

Arizona, California,* New Mexico, Oregon, Utah.

2. *Parachelifer hubbardi* (Banks)

Chelifer hubbardi BANKS, 1901, Proc. U. S. Natl. Mus., vol. 23, p. 588.

Parachelifer hubbardi, HOFF, 1946, Jour. Washington Acad. Sci., vol. 36, p. 204.

Arizona.*

3. *Parachelifer persimilis* (Banks)

Chelifer persimilis BANKS, 1909, Canadian Ent., vol. 41, p. 304.

Parachelifer persimilis, HOFF, 1950, Amer. Mus. Novitates, no. 1448, p. 2; 1956, Amer. Mus. Novitates, no. 1804, p. 4.

Arizona, Colorado, Montana, Nebraska, Nevada, New Mexico,* Utah.

4. *Parachelifer montanus* Chamberlin

Parachelifer montanus CHAMBERLIN, 1934, Pan-Pacific Ent., vol. 10, p. 129.

Montana.*

5. *Parachelifer longipalpus* Hoff

Parachelifer longipalpus HOFF, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 49. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 177.

Arkansas,* Illinois, Nebraska.

6. *Parachelifer? muricatus* (Say)

Chelifer muricatus SAY, 1821, Jour. Acad. Nat. Sci. Philadelphia, vol. 2, p. 63. HAGEN, 1869, Record of American entomology for the year 1868, p. 51. BANKS, 1895, Jour. New York Ent. Soc., vol. 3, p. 3; 1908, Bull. Wisconsin Nat. Hist. Soc., new ser., vol. 6, p. 39. COOLIDGE, 1908, Psyche, vol. 15, p. 110.
Parachelifer? muricatus, BEIER, 1932, Das Tierreich, vol. 58, p. 240.

Alabama, Florida, Kentucky, Massachusetts, New York, Ohio, Texas, Virginia. Say gives North America as the locality. All available records are by early workers and in many instances are probably based on incorrect identifications. Until the species receives additional study, it seems advisable to list all known state records except for the New Mexico record, which apparently is a misidentification of a specimen of *Parachelifer persimilis.*

XENOCHELIFER CHAMBERLIN

1. *Xenochelifer davidi* Chamberlin

Xenochelifer davidi CHAMBERLIN, 1949, Amer. Mus. Novitates, no. 1430, p. 12.

California.*

PAISOCHELIFER HOFF

1. *Paisochelifer callus* (Hoff)

Hysterochelifer callus HOFF, 1945, Amer. Midland Nat., vol. 34, p. 515.
Paisochelifer callus, HOFF, 1950, Amer. Mus. Novitates, no. 1448, p. 10.

Illinois,* Maryland. Through a clerical error, mention in the literature of specimens from New Jersey actually refers to specimens of the collection reported from Maryland.

2. *Paisochelifer utahensis* Hoff

Paisochelifer utahensis HOFF, 1950, Amer. Mus. Novitates, no. 1448, p. 11.

Utah.*

IDIOCHELIFER CHAMBERLIN

1. *Idiochelifer nigripalpus* (Ewing)

Chelifer cancroides var. *nigripalpus* EWING, 1911, Jour. New York Ent. Soc., vol. 19, p. 73.

Hysterochelifer longidactylus HOFF, 1945, Amer. Midland Nat., vol. 34, p. 511.

Idiochelifer nigripalpus, HOFF, 1946, Amer. Mus. Novitates, no. 1318, p. 26; 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 487; 1950, Amer. Mus. Novitates, no. 1448, p. 3. HOFF AND BOLSTERLI, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 177.

Arkansas, Illinois, Indiana, Iowa,* Missouri, Wisconsin.

HYSTEROCHELIFER CHAMBERLIN

1. *Hysterochelifer fuscipes* (Banks)

Chelifer fuscipes BANKS, 1909, Canadian Ent., vol. 41, p. 303.

Hysterochelifer fuscipes, BEIER, 1932, Das Tierreich, vol. 58, p. 230.

California.*

2. *Hysterochelifer proprius* Hoff

Hysterochelifer proprius HOFF, 1950, Amer. Mus. Novitates, no. 1448, p. 4; 1956, Amer. Mus. Novitates, no. 1804, p. 11.

Arizona,* New Mexico.

3. *Hysterochelifer urbanus* Hoff

Hysterochelifer urbanus HOFF, 1956, Amer. Mus. Novitates, no. 1804, p. 12.

New Mexico.*

PHOROCHELIFER HOFF

1. *Phorochelifer mundus* Hoff

Phorochelifer mundus HOFF, 1956, Amer. Mus. Novitates, no. 1804, p. 18.

New Mexico.*

LEVICHELIFER HOFF

1. *Levichelifer fulvopalpus* (Hoff)

Idiochelifer fulvopalpus HOFF, 1946, Amer. Mus. Novitates, no. 1318, p. 23.

Levichelifer fulvopalpus, HOFF, 1950, Amer. Mus. Novitates, no. 1448, p. 15; 1956, Amer. Mus. Novitates, no. 1804, p. 8.

New Mexico, Texas.

OCALACHELIFER CHAMBERLIN

1. *Ocalachelifer cribratus* Chamberlin

Ocalachelifer cribratus Chamberlin, 1949, Amer. Mus. Novitates, no. 1430, p. 19.

Florida.*

HAPLOCHELIFER CHAMBERLIN

1. *Haplochelifer philipi* (Chamberlin)

Chelifer philipi Chamberlin, 1923, Proc. California Acad. Sci., ser. 4, vol. 12, p. 374.
Haplochelifer philipi, Chamberlin, 1952, Bull. Amer. Mus. Nat. Hist., vol. 99, p. 306. Hoff, 1956, Amer. Mus. Novitates, no. 1804, p. 3.

Arizona, California,* Colorado, Idaho, Nevada, New Mexico, Oregon, Utah.

TRIBE JUXTACHELIFERINI HOFF

JUXTACHELIFER HOFF

1. *Juxtachelifer fructuosus* Hoff

Juxtachelifer fructuosus Hoff, 1956, Amer. Mus. Novitates, no. 1804, p. 23.

New Mexico.*

TRIBE DACTYLOCHELIFERINI BEIER

DACTYLOCHELIFER BEIER

1. *Dactylochelifer copiosus* Hoff

Dactylochelifer copiosus Hoff, 1945, Trans. Amer. Micros. Soc., vol. 64, p. 53; 1949, Bull. Illinois Nat. Hist. Surv., vol. 24, p. 491. Hoff and Bolsterli, 1956, Trans. Amer. Micros. Soc., vol. 75, p. 178.

Arkansas,* Illinois, Kansas, Kentucky, Mississippi, Missouri, Tennessee.

2. *Dactylochelifer silvestris* Hoff

Dactylochelifer silvestris Hoff, 1956, Amer. Mus. Novitates, no. 1804, p. 29.

New Mexico.*

TYRANNOCHELIFER CHAMBERLIN

1. *Tyrannochelifer floridanus* (Banks)

Chelifer floridanus Banks, 1891, Canadian Ent., vol. 23, p. 162.
Tyrannochelifer floridanus, Chamberlin, 1932, Canadian Ent., vol. 64, p. 20. Beier, 1932, Das Tierreich, vol. 58, p. 253.

Florida.*

ELLINGSENIUS CHAMBERLIN

1. *Ellingsenius sculpturatus* (Lewis)

Chelifer sculpturatus LEWIS, 1903, Jour. Quekett Micros. Club, ser. 2, vol. 8, p. 497 (cited from Beier, 1932, Das Tierreich, vol. 58, p. 275).

Ellingsenius sculpturatus, CHAMBERLIN, 1932, Canadian Ent., vol. 64, p. 36; 1949, Amer. Mus. Novitates, no. 1430, p. 52.

California. If Chamberlin's record for California is correct, it is probable that this African species has been introduced with honeybees.

SUBFAMILY WITHIINAE CHAMBERLIN

TRIBE WITHIINI CHAMBERLIN

WITHIUS KEW

1. *Withius texanus* (Banks)

Chelifer texanus BANKS, 1891, Canadian Ent., vol. 23, p. 162.

Withius texanus, HOFF, 1947, Bull. Mus. Comp. Zoöl., Harvard College, vol. 98, p. 542.

Texas.*

2. *Withius lagunae* (Moles)

Chelanops lagunae MOLES, 1914, Jour. Ent. Zool., Pomona College, vol. 6, p. 42.

Withius lagunae, CHAMBERLIN, 1923, Proc. California Acad. Sci., ser. 4, vol. 12, p. 376; 1931, Canadian Ent., vol. 63, p. 293.

Withius? lagunae, BEIER, 1932, Das Tierreich, vol. 58, p. 200.

California.*

3. *Withius vagrans* Chamberlin

Withius vagrans CHAMBERLIN, 1925, California Univ. Publ., Tech. Bull., College Agr., Ent., vol. 3, p. 332.

Texas.*

SPECIES LISTED BY STATES AND PROVINCES

UNITED STATES

ALABAMA: *Kleptochthonius multispinosus* (Hoff), *Parachelifer? muricatus* (Say).

ARIZONA: *Dinocheirus arizonensis** (Banks), *D. obesus** (Banks), *D. partitus** (Banks), *Haplochelifer philipi* (Chamberlin), *Hysterochelifer proprius** Hoff, *Lustrochernes grossus* (Banks), *Microcreagris theveneti* (Simon), *Parachelifer hubbardi** (Banks), *P. persimilis* (Banks), *P. scabriculus* (Simon).

ARKANSAS: *Acuminochernes crassopalpus** (Hoff), *Apochthonius moestus* (Banks), *Dactylochelifer copiosus** Hoff, *Dinocheirus pallidus* (Banks), *Idiochelifer nigripalpus* (Ewing), *Lamprochernes oblongus* (Say), *Microbisium confusum* Hoff, *Microcreagris ozarkensis** Hoff, *Mirochernes dentatus* (Banks), *Parachelifer longipalpus** Hoff, *P. squarrosus* Hoff, *Pselaphochernes parvus** Hoff, *Pseudozaona occidentalis** Hoff and Bolsterli, *Sternophorus paludis* Chamberlin.

CALIFORNIA: *Aglaochita rex** Chamberlin, *Albiorix edentatus** Chamberlin, *A. mexicanus* (Banks), *A. parvidentatus** Chamberlin, *Apocheiridium ferumoides** Chamberlin, *A. inexpectum** Chamberlin, *Chelifer cancroides* (Linnaeus), *Chitrella cala** (Chamberlin), *Chthonius (Ephippiochthonius) californicus** Chamberlin, *Dinocheirus dorsalis** (Banks), *D.? serratus** (Moles), *D. sicarius** Chamberlin, *D. validus** (Banks), *Ellingsenius sculpturatus* (Lewis), *Garypus californicus** Banks, *Halobisium occidentale** Beier, *Haplochelifer philipi** (Chamberlin), *Hesperochernes laurae** Chamberlin, *H. mimulus** Chamberlin, *H. pallipes** (Banks), *H.? paludis** (Moles), *H. thomomysi** Hoff, *Hesperolpium slevini* (Chamberlin), *Hyarinus hesperus** Chamberlin, *Hysterochelifer fuscipes** (Banks), *Kewochthonius stanfordianus** (Chamberlin), *Lechytia pacifica* (Banks), *Lustrochernes? acuminatus** (Simon), *Menthus californicus** Chamberlin, *Microcreagris? californica** (Banks), *M. chamberlini** Beier, *M. hespera** Chamberlin, *M. laurae** Chamberlin, *M. macilenta** (Simon), *M. magna** (Banks), *M.? magna** (Ewing), *M. nigrescens** Chamberlin, *M. phyllisae** Chamberlin, *M. sequoiae** Chamberlin, *M. thermophila** Chamberlin, *M. theveneti** (Simon), *Mundochthonius erosidens** Chamberlin, *M. magnus** Chamberlin, *Parachelifer scabriculus** (Simon), *Pseudogarypinus marianae** (Chamberlin), *Pycnochernes linsdalei** Chamberlin, *Syarinus obscurus* (Banks), *Withius lagunae** (Moles), *Xenochelifer davidi** Chamberlin, genus? *hirsutus** (Banks) (Lamprochernetinae).

COLORADO: *Chelifer cancroides* (Linnaeus), *Haplochelifer philipi* (Chamberlin), *Lustrochernes grossus** (Banks), *Microbisium confusum* Hoff, *M. parvulum* (Banks), *Microcreagris? tibialis** (Banks), *Mundochthonius montanus** Chamberlin, *Parachelifer persimilis* (Banks), *Syarinus granulatus** Chamberlin.

CONNECTICUT: *Chthonius (Chthonius) ischnocheles* (Hermann), *C. (Ephippiochthonius) tetrachelatus* (Preyssler).

DELAWARE: None.

DISTRICT OF COLUMBIA: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Chthonius (Ephippiochthonius) tetrachelatus* (Preyssler), *C. (Globochthonius?) virginicus* Chamberlin, *Lamprocher-*

nes oblongus (Say), *Microbisium brunneum* (Hagen), *Microcreagris rufula** (Banks).

FLORIDA: *Chelanops affinis** Banks, *Chthonius* (*Chthonius*) *ischnocheles* (Hermann), *Dinocheirus tumidus** (Banks), *Garyops depressa** Banks, *Garypus floridensis** Banks, *Lamprochernes oblongus* (Say), *Lustrochernes? floridanus** (Tullgren), *Mirochernes dentatus** (Banks), *Ocalachelifer cribratus** Chamberlin, *Pachyolpium? obscurum** (Banks), *Parachelifer? muricatus* (Say), *Parachernes diversus** (Banks), *P.? floridae** (Balzan), *P. latimanus** (Banks), *P. latus** (Banks), *Paratemnus elongatus** (Banks), *Sternophorus paludis** Chamberlin, *Tyrannochelifer floridanus** (Banks), *Verrucaditha spinosa** (Banks), *Zaona biseriatum** (Banks).

GEORGIA: *Chelifer cancroides* (Linnaeus), *Chthonius* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Kewochthonius paludis** (Chamberlin), *Lamprochernes oblongus* (Say), *Microbisium brunneum* (Hagen), *Neobisium* (*Neobisium*) *carolinense* (Banks), *Sternophorus paludis* Chamberlin.

IDAHO: *Apocheiridium mormon** Chamberlin, *Cerogarypus agassizi* Jacot, *Chelifer cancroides* (Linnaeus), *Haplochelifer philipi* (Chamberlin), *Pycnochernes foxi** Chamberlin.

ILLINOIS: *Acuminochernes crassopalpus* (Hoff), *Apocheiridium stannardi** Hoff, *Apochthonius moestus* (Banks), *Cheiridium firmum** Hoff, *Chelanops? corticis** Ewing, *Chelifer cancroides* (Linnaeus), *Chthonius* (*Chthonius*) *ischnocheles* (Hermann), *C.* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Dactylochelifer copiosus* Hoff, *Dinocheirus pallidus* (Banks), *D. solus** Hoff, *Idiochelifer nigripalpus* (Ewing), *Illinichernes distinctus** Hoff, *Kleptochthonius multispinosus* (Hoff), *Lamprochernes minor** Hoff, *L. oblongus** (Say), *Larca granulata* (Banks), *Microbisium brunneum* (Hagen), *M. confusum** Hoff, *Mirochernes dentatus* (Banks), *Mundochthonius rossi** Hoff, *M. sandersoni** Hoff, *Paisochelifer callus** (Hoff), *Parachelifer longipalpus* Hoff, *Parachernes squarrosus** Hoff, *Pselaphochernes parvus* Hoff, *Reginachernes ewingi** Hoff, *R. lymphatus** Hoff, *Sternophorus paludis* Chamberlin, *Verrucaditha spinosa* (Banks).

INDIANA: *Apochthonius moestus* (Banks), *Chthonius? packardi** (Hagen), *Chthonius* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Dinocheirus pallidus* (Banks), *Idiochelifer nigripalpus* (Ewing), *Illinichernes distinctus* Hoff, *Lamprochernes godfreyi* (Kew), *L. oblongus* (Say), *Microbisium confusum* Hoff, *Mirochernes dentatus* (Banks), *Parachernes squarrosus* Hoff, *Verrucaditha spinosa* (Banks).

IOWA: *Microbisium brunneum* (Hagen), *M. confusum* Hoff, *Mundochthonius rossi* Hoff, *Idiochelifer nigripalpus** (Ewing).

KANSAS: *Acuminochernes crassopalpus* (Hoff), *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Dactylochelifer copiosus* Hoff, *Dinocheirus venustus** Hoff and Clawson, *Lamprochernes godfreyi* (Kew), *Microbisium confusum* Hoff.

KENTUCKY: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Chthonius? packardi* (Hagen), *C.* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Dactylochelifer copiosus* Hoff, *Kleptochthonius multispinosus* (Hoff), *Lamprochernes oblongus* (Say), *Microbisium confusum* Hoff, *Microcreagris rufula* (Banks), *Neobisium* (*Neobisium*) *carolinense* (Banks), *Parachelifer? muricatus* (Say), *Pselaphochernes scorpioides* (Hermann), *Pseudozaona mirabilis** (Banks).

LOUISIANA: *Lamprochernes oblongus* (Say), *Lustrochernes pennsylvanicus* (Ellingsen), *Verrucaditha spinosa* (Banks).

MAINE: *Chelifer cancroides* (Linnaeus), *Chthonius* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Hesperochernes tamiae* Beier, *Microbisium brunneum* (Hagen).

MARYLAND: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Chthonius* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *C.* (*Globochthonius?*) *virginicus* Chamberlin, *Illinichernes distinctus* Hoff, *Paisochelifer callus* (Hoff).

MASSACHUSETTS: *Chelifer cancroides* (Linnaeus), *Chthonius* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Hesperochernes sanborni** (Hagen), *Lamprochernes oblongus* (Say), *Microbisium brunneum** (Hagen), *Parachelifer? muricatus* (Say).

MICHIGAN: *Chelifer cancroides* (Linnaeus), *Dendrochernes morosus** (Banks), *Lamprochernes oblongus* (Say), *Microbisium brunneum* (Hagen).

MINNESOTA: *Chthonius* (*Chthonius*) *ischnocheles* (Hermann), *Lamprochernes minor* Hoff.

MISSISSIPPI: *Dactylochelifer copiosus* Hoff, *Kewochthonius paludis* (Chamberlin), *Kleptochthonius multispinosus* (Hoff), *Lustrochernes pennsylvanicus* (Ellingsen), *Microcreagris atlantica* Chamberlin, *Sternophorus paludis* Chamberlin, *Verrucaditha spinosa* (Banks).

MISSOURI: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Dactylochelifer copiosus* Hoff, *Dinocheirus venustus* Hoff and Clawson, *Idiochelifer nigripalpus* (Ewing), *Kleptochthonius multispinosus* (Hoff), *Lamprochernes oblongus (Say)*, *Microbisium brunneum* (Hagen), *M. confusum* Hoff, *Verrucaditha spinosa* (Banks).

MONTANA: *Chelifer cancroides* (Linnaeus), *Dendrochernes instabilis** (Chamberlin), *Hesperochernes montanus** Chamberlin, *Parachelifer montanus** Chamberlin, *P. persimilis* (Banks), *Syarinus obscurus* (Banks).

NEBRASKA: *Chelifer cancroides* (Linnaeus), *Lamprochernes oblongus* (Say), *Microbisium confusum* Hoff, *Parachelifer longipalpus* Hoff, *P. persimilis* (Banks), *Reginachernes lymphatus* Hoff.

NEVADA: *Chelifer cancroides* (Linnaeus), *Haplochelifer philipi* (Chamberlin), *Parachelifer persimilis* (Banks).

NEW HAMPSHIRE: *Pseudogarypus banksi** Jacot.

NEW JERSEY: *Chthonius* (*Chthonius*) *ischnocheles* (Hermann), *C.* (*Ephippiochthonius*) *tetrachelatus* (Preyssler).

NEW MEXICO: *Albiorix retrodentatus* Hoff, *Apochthonius magnanimus** Hoff, *A. moestus* (Banks), *Archeolarca rotunda* Hoff and Clawson, *Chelifer cancroides* (Linnaeus), *Chitrella transversa** (Banks), *Chrysochernes elatus** Hoff, *Dactylochelifer silvestris** Hoff, *Dendrochernes crassus** Hoff, *Dinocheirus aequalis* (Banks), *D. astutus** Hoff, *D. athleticus** Hoff, *D. imperiosus** Hoff, *D. validus* (Banks), *Haplochelifer philipi* (Chamberlin), *Hesperochernes molestus** Hoff, *H. riograndensis** Hoff and Clawson, *H. utahensis* Hoff and Clawson, *Hysterochelifer proprius* Hoff, *H. urbanus** Hoff, *Juxtachelifer fructuosus** Hoff, *Lamprochernes ellipticus* Hoff, *Lechytia pacifica (Banks), Levichelifer fulvopalpus* (Hoff), *Lustrochernes grossus* (Banks), *Microbisium parvulum** (Banks), *Microcreagris laudabilis** Hoff, *Mundochthonius montanus* Chamberlin, *Neoamblyolpium alienum** Hoff, *Parachelifer persimilis** (Banks), *P. scabriculus* (Simon), *Parachernes nubilis** Hoff, *Phorochelifer mundus** Hoff, *Pseudogarypinus? frontalis** (Banks), *Serianus dolosus** Hoff, *Syarinus granulatus* Chamberlin, *S. honestus** Hoff, *S. obscurus* (Banks), *Tychochernes inflatus** Hoff.

NEW YORK: *Apochthonius moestus** (Banks), *Chelifer cancroides* (Linnaeus), *Chthonius* (*Chthonius*) *ischnocheles* (Hermann), *C.* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *Dinocheirus pallidus** (Banks), *D. tristis** (Banks), *Hesperochernes sanborni* (Hagen), *H. tamiae** Beier, *Lamprochernes oblongus* (Say), *Larca granulata** (Banks), *Microbisium brunneum* (Hagen), *M. confusum* Hoff, *Parachelifer? muricatus* (Say).

NORTH CAROLINA: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Chthonius* (*Chthonius*) *ischnocheles* (Hermann), *C.* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *C.* (*Globochthonius?*) *virginicus* Chamberlin, *Kewochthonius paludis* (Chamberlin), *Kleptochthonius crosbyi** (Chamberlin), *K. multispinosus** (Hoff), *Lam-*

prochernes oblongus (Say), *Microbisium brunneum* (Hagen), *M. confusum* Hoff, *Microcreagris atlantica** Chamberlin, *M. lata** Hoff, *Mirochernes dentatus* (Banks), *Neobisium (Neobisium) carolinense** (Banks), *Parachernes virginica* (Banks), *Verrucaditha spinosa* (Banks).

North Dakota: *Chelifer cancroides* (Linnaeus), *Lamprochernes minor* Hoff, *Microbisium confusum* Hoff, *Mundochthonius rossi* Hoff.

Ohio: *Chelifer cancroides* (Linnaeus), *Chthonius (Ephippiochthonius) tetrachelatus* (Preyssler), *Lamprochernes oblongus* (Say), *Microbisium brunneum* (Hagen), *M. confusum* Hoff, *Parachelifer? muricatus* (Say), *Verrucaditha spinosa* (Banks).

Oklahoma: *Microbisium parvulum* (Banks).

Oregon: *Apochthonius occidentalis** Chamberlin, *Chelifer cancroides* (Linnaeus), *Haplochelifer philipi* (Chamberlin), *Microcreagris theveneti* (Simon), *Neobisium (Parobisium) hesperum** Chamberlin, *Parachelifer scabriculus* (Simon).

Pennsylvania: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Chthonius (Chthonius) ischnocheles* (Hermann), *C. (Ephippiochthonius) tetrachelatus* (Preyssler), *Lamprochernes oblongus* (Say), *Lustrochernes pennsylvanicus** (Ellingsen), *Neobisium carolinense* (Banks).

Rhode Island: None.

South Carolina: None.

South Dakota: None.

Tennessee: *Apochthonius moestus* (Banks), *Dactylochelifer copiosus* Hoff, *Kewochthonius paludis* (Chamberlin), *Kleptochthonius multispinosus* (Hoff), *Larca granulata* (Banks), *Microbisium confusum* Hoff, *Neobisium (Neobisium) carolinense* (Banks), *Pselaphochernes parvus* Hoff.

Texas: *Apochthonius moestus* (Banks), *Chelifer cancroides* (Linnaeus), *Dinocheirus aequalis** (Banks), *D. stercoreus** Turk, *D. texanus** Hoff and Clawson, *Hesperochernes unicolor** (Banks), *Lamprochernes oblongus* (Say), *Levichelifer fulvopalpus* (Hoff), *Microcreagris rufula* (Banks), *Pachyolpium? minutum** (Banks), *Parachelifer? muricatus* (Say), *Parachernes pulchellus** (Banks), *P. tumimanus** (Banks), *Withius texanus** (Banks), *W. vagrans** Chamberlin.

Utah: *Albiorix mexicanus* (Banks), *Apocheiridium ferumoides* Chamberlin, *A. mormon* Chamberlin, *Archeolarca rotunda** Hoff and Clawson, *Cerogarypus agassizi** Jacot, *Cheiridium insperatum** Hoff and Clawson, *Chelifer cancroides* (Linnaeus), *Dinocheirus sicarius* Chamberlin, *Haplochelifer philipi* (Chamberlin), *Hesperochernes utahensis** Hoff and Clawson, *Lechytia pacifica* (Banks), *Microbisium par-*

vulum (Banks), *Microcreagris cingara** Chamberlin, *Paisochelifer utahensis** Hoff, *Parachelifer persimilis* (Banks), *P. scabriculus* (Simon), *Pselaphochernes becki** Hoff and Clawson, *Pseudogarypinus marianae* (Chamberlin), *Serianus serianus* (Chamberlin).

VERMONT: *Hesperochernes tamiae* Beier.

VIRGINIA: *Apochthonius moestus* (Banks), *Chthonius? coecus** Packard, *C.* (*Ephippiochthonius*) *tetrachelatus* (Preyssler), *C.* (*Globochthonius?*) *virginicus** Chamberlin, *Lamprochernes oblongus* (Say), *Microbisium brunneum* (Hagen), *Mirochernes dentatus* (Banks), *Microcreagris? cavicola** (Packard), *M. rufula* (Banks), *Neobisium* (*Neobisium*) *carolinense* (Banks), *Parachelifer? muricatus* (Say), *Parachernes virginica** (Banks), *Phoberocheirus cribellus** Chamberlin, *Pseudozaona mirabilis* (Banks).

WASHINGTON: *Apochthonius intermedius** Chamberlin, *Lechytia pacifica** (Banks), *Lustrochernes? acuminatus* (Simon), *Microcreagris tacomensis** (Ellingsen), *M. theveneti* (Simon), *Pseudogarypus hesperus** Chamberlin, *Syarinus obscurus** (Banks).

WEST VIRGINIA: *Chamberlinochthonius henroti** Vachon.

WISCONSIN: *Chelifer cancroides* (Linnaeus), *Idiochelifer nigripalpus* (Ewing), *Lamprochernes minor* Hoff, *Microbisium brunneum* (Hagen), *M. confusum* Hoff, *Mundochthonius rossi* Hoff, *Pselaphochernes parvus* Hoff, *Syarinus granulatus* Chamberlin.

WYOMING: *Chelifer cancroides* (Linnaeus), *Pseudogarypus bicornis** (Banks), *Syarinus obscurus* (Banks), *Wyochernes hutsoni** Hoff.

CANADA

ALBERTA: *Hesperochernes canadensis** Hoff.

BRITISH COLUMBIA: *Chelifer cancroides* (Linnaeus), *Syarinus obscurus* (Banks).

MANITOBA: *Microbisium brunneum* (Hagen).

ONTARIO: *Chelifer cancroides* (Linnaeus).

TERRITORY OF ALASKA

ALASKA: *Chelifer cancroides* (Linnaeus).

KEY TO THE GENERA OF PSEUDOSCORPIONS REPORTED FOR NORTH AMERICA NORTH OF MEXICO

1. Tarsus of first leg with one segment, tarsus of fourth leg subdivided to form two segments; chelal fingers without venom apparatus (suborder Heterosphyronida) 2

Tarsi of all legs similar; venom apparatus usually present in at least one chelal finger 9

2. Spiracles obliquely oriented and surrounded anteriorly and laterally by a definite sclerite (family Tridenchthoniidae) .... *Verrucaditha*

Spiracles transverse in position and not surrounded in part by a separate sclerite (family Chthoniidae) 3

3. Dorsum of chelal hand with a group of four tactile setae (tribe Lechytiini) .... *Lechytia*

Dorsum of chelal hand medially with a transverse pair of tactile setae (tribe Chthoniini) 4

4. No median intercoxal tubercle between the bases of the third and fourth pedal coxae; coxal spines acuminate and confined to the coxae of the first legs 5

Median intercoxal tubercle between the bases of the third and fourth pedal coxae; coxal spines not confined to the coxae of the first legs ... 7

5. Marginal teeth of chelal fingers small and contiguous ..... *Apochthonius*

Marginal teeth of chelal fingers well spaced, alternately large and small. . 6

6. Fixed cheliceral finger and hand with seven setae; fourth tergite with at least six setae .... *Kleptochthonius*

Fixed cheliceral finger and hand with only five setae; fourth tergite with four setae .... *Chamberlinochthonius*

7. Coxal spines (often only a single, deeply incised blade) confined to the second pedal coxae .... *Mundochthonius*

Coxal spines on the second and third pedal coxae 8

8. Marginal teeth of chelal fingers contiguous and blunt .... *Kewochthonius*

Marginal teeth of at least the fixed chelal finger acute and distinctly spaced .... *Chthonius*

9. Tarsi of all legs divided, each leg with three segments distal to the femur (largest segment of the leg) (suborder Diplosphyronida) 10

Tarsi of legs not divided, each leg with only two segments distal to the femur (largest segment of the leg) (suborder Monosphyronida) 27

10. Chelicera with inner margin of movable finger dentate, plates of serrula interior not basally fused, and laminal seta absent; subterminal setae of pedal tarsi almost always dentate or forked (superfamily Neobisioidea) 11

Chelicera with inner margin of movable finger not toothed but having a single (sometimes subdivided) subapical lobe at the distal end of the margin, plates of serrula interior basally fused to form a membranous plate or velum, and a laminal seta present; subterminal setae of pedal tarsi simple (superfamily Garypoidea) 19

11. Venom apparatus developed in both chelal fingers, neither finger with a sheathing device to receive the venom tooth or venedens of the opposing finger (family Ideoroncidae, subfamily Ideoroncinae) .... *Albiorix*

Venom apparatus in only the fixed chelal finger, movable finger with a sheathing device 12

12. Pleural membrane of abdomen granulate or strongly granulostriate; articulation between parts of femur of fourth leg nearly perpendicular to the long axis of the femur (family Neobisiidae) 13

Pleural membrane of abdomen smoothly and longitudinally striate; femoral articulation between parts of femur of fourth leg usually more or less strongly oblique to the long axis of the femur (family Syarinidae). 16

13. Movable cheliceral finger without a galea, spinneret when present reduced to an inconspicuous sclerotic knob or tubercle (subfamily Neobisiinae) 14

Movable cheliceral finger with spinnerets well developed and in the form of one or more galeae or galeate processes (subfamily Ideobisiinae)... 15

14. Movable chelal finger with four tactile setae, fixed finger with eight tactile setae; both males and females known .... *Neobisium*

Movable chelal finger with three tactile setae, fixed finger with seven; males unknown (females of *Microbisium* may be separated from tritonymphs of *Neobisium* by the presence of cribriform plates in the females) .... *Microbisium*

15. Spinneret of movable cheliceral finger consisting of a series of eight to 10 simple galeae; chelal fingers without tactile setae in the distal one-third of their length .... *Halobisium*

Spinneret consisting of a single simple or weakly branched galea; one or two tactile setae in the distal one-third of the length of each chelal finger .... *Microcreagris*

16. Articulation between parts of the femur of the fourth leg strongly oblique to the long axis of the femur; subterminal setae of pedal tarsi simple and acute; galea present; regularity of the outer margin of the movable cheliceral finger broken (emarginate) at point of insertion of galea (subfamily Syarininae) 17

Femoral articulation of fourth leg never more than slightly oblique to the long axis of the femur; subterminal setae of pedal tarsi almost never simple and acute; galea usually absent or, if present, then the outer margin of the movable finger of chelicera is smoothly rounded at the point of insertion of the galea (subfamily Chitrellinae) 18

17. Movable chelal finger with marginal teeth spaced and tactile seta *t* absent .... *Hyarinus*

Movable chelal finger with marginal teeth contiguous and with tactile seta *t* present and nearly contiguous with tactile seta *st* .... *Syarinus*

18. Tactile seta *ist* of fixed chelal finger nearly as close to *isb* as to *est* .... *Chitrella*

Tactile seta *ist* of fixed chelal finger clearly grouped with *est*, *et*, and *it*, and never more than two areolar diameters proximal to *est*. . *Aglaochitra*

19. Venom apparatus only in fixed chelal finger; movable chelal finger with a receptor venedens to receive the venom tooth of the opposing finger (family Menthidae) .... *Menthus*

Venom apparatus in both chelal fingers, no venedens receptor on either finger 20

20. Pleural membrane granulohispid or wrinkled plicate; coxal area posteriorly widened; investing setae of palps short and inconspicuous (family Garypidae, subfamily Garypinae) 21

Pleural membrane smoothly and evenly plicate; coxal area never widened posteriorly; investing setae of palps generally prominent, always slender and acute (family Olpiidae) 23

21. Arolia of pedal tarsi shorter than tarsal claws .... *Garypus*

Arolia of pedal tarsi longer than tarsal claws 22

22. Movable chelal finger with less than four tactile setae ....*Larca*

Movable chelal finger with four tactile setae ....*Archeolarca*

23. Arolia of pedal tarsi entire; tergites and sternites entire (subfamily Olpiinae) 24

Arolia of pedal tarsi divided or bifurcated; at least some of the anterior tergites and sternites medially divided (subfamily Garypininae) 25

24. Venom ducts short, nodus ramosus always distal to tactile seta *it* in the fixed finger; the length of the movable chelal finger not less than four times the length of the venom duct ....*Pachyolpium*

Venom ducts long, the nodus ramosus of the fixed chelal finger always proximal to tactile seta *it;* the length of the movable chelal finger less than four times the distance between the nodus ramosus and the finger tip ....*Hesperolpium*

25. First leg with the articulation between parts of the femur virtually immobile and with the pars tibialis longer than the pars basalis ..*Serianus*

First leg with the femoral articulation partially mobile and with the pars tibialis distinctly shorter than the pars basalis 26

26. Tactile seta *isb* of the fixed chelal finger much closer to *ib* than to *ist;* marginal teeth of both chelal fingers equally well developed ....*Pseudogarypinus*

Tactile seta *isb* of the fixed chelal finger much closer to *ist* than to *ib;* marginal teeth of movable chelal finger more weakly developed than the teeth of the fixed chelal finger ....*Neoamblyolpium*

27. With four prominent eyes (superfamily Feaelloidea, family Pseudogarypidae) 28

With two eyes or none 29

28. Pseudocoxal spines typically developed on coxa of first leg; posterior eyes protected by a sclerotic shield ....*Pseudogarypus*

Pseudocoxal spines absent; posterior eyes not protected by a sclerotic shield ....*Cerogarypus*

29. Femora of all legs similar in structure (superfamily Cheiridioidea) 30

Femur and femoral articulation of the first leg distinctly different from that of the fourth leg (superfamily Cheliferoidea) 33

30. Femoral articulations never clearly distinct, femora of legs not divided; each leg with five segments (family Cheiridiidae) 31

Femoral articulations well developed, each femur divided into pars basalis and pars tibialis; each leg with six segments (family Sternophoridae)..32

31. Movable chelal finger with one tactile seta; 11 tergites visible from above ....*Apocheiridium*

Movable chelal finger with two tactile setae; only 10 tergites visible from above ....*Cheiridium*

32. Carapace narrowed anteriorly; with a pair of small, eyeless, ocular tuberosities well removed from the anterior margin of the carapace ....*Garyops*

Carapace not strongly narrowed anteriorly; without the ocular tuberosities described for *Garyops* ....*Sternophorus*

33. Venom apparatus developed only in fixed chelal finger (family Atemnidae, subfamily Atemninae) ....*Paratemnus*

Venom apparatus developed in both fingers or in the movable finger only 34

34. Venom apparatus in only the movable chelal finger, occasionally vestigial in the fixed finger; chelal fingers almost always with accessory teeth in addition to marginal teeth (family Chernetidae) 35

Venom apparatus equally well developed in both fixed and movable chelal fingers; no accessory teeth on either chelal finger. (In this family, males are often necessary for identification as to genus.) (Family Cheliferidae) 54

35. Tactile seta present on the tibia of the fourth leg; pleural membrane of abdomen smoothly striate, never wrinkled, rugose, or granulate. (If a species with the chelal hand subtriangular in outline in lateral view and almost as deep as long runs to this point, the form may be *Atemnus hirsutus* Banks, a California species that possibly belongs to an undescribed genus.) (Subfamily Lamprochernetinae) 36

No tactile seta on the tibia of the fourth leg; pleural membrane of abdomen not smoothly plicate (subfamily Chernetinae) 38

36. Tactile seta *it* of the fixed chelal finger at least as close to the finger tip as the distance between *ist* and *isb* .... *Lustrochernes*

Tactile seta *it* of the fixed chelal finger distinctly farther from the finger tip than the distance between *ist* and *isb* 37

37. Tarsal tactile seta of fourth leg basal in position, removed at most from the proximal margin of the tarsus by 0.3 of the total length of the tarsus .... *Lamprochernes*

Tarsal tactile seta of fourth leg not basal in position, removed from the proximal margin of the tarsus by not less than 0.35 of the total length of the tarsus .... *Pycnochernes*

38. Flagellum of chelicera with three blades 39

Flagellum of chelicera with four blades 45

39. Tarsus of fourth leg with a tactile seta 40

Tarsus of fourth leg without a tactile seta 43

40. Fixed chelal finger with all tactile setae except *et* confined to the basal one-half of the finger, so that the distance between seta *it* and the finger tip is at least as much as one-half of the length of the movable chelal finger .... *Parachernes*

Fixed chelal finger with tactile setae not basally grouped, with the distance between seta *it* and the finger tip less than one-half of the length of the movable chelal finger 41

41. Tactile seta of tarsus of fourth leg median in position, less than 0.6 of the length of the tarsus from the proximal margin of the tarsus; distance between tactile seta and apical setae appreciably greater than the depth of the tarsus at the level of the tactile seta .... *Pselaphochernes*

Tactile seta of tarsus of the fourth leg subterminal in position, 0.6 or more of the total length of the tarsus from the proximal tarsal margin; distance between tactile seta and apical setae never appreciably exceeding the depth of the tarsus at the level of the tactile seta 42

42. Cheliceral hand with seta *sb* subterminally denticulate and seta *b* acuminate; fixed chelal finger with tactile seta *it* closer to the level of *et* than to the level of *est*. (While *Dinocheirus* does not belong at this point in

the key, an occasional specimen may lead here because one of the blades of the flagellum has been lost or is hidden by the other blades or because a species has been incorrectly assigned to the genus.) ...... *Dinocheirus*

Cheliceral hand with both setae *sb* and *b* bearing a few spinules in the distal one-half; fixed chelal finger with tactile seta *it* closer to the level of *est* than to the level of *et* .... *Tychochernes*

43. Palp slender, femur with a length/width ratio of more than 4.0; chelal fingers with at least a few accessory teeth .... *Zaona*

Palp fairly stout, femur with length/width ratio of less than 4.0; chelal fingers without accessory teeth 44

44. Movable chelal finger with tactile seta *st* nearer to *sb* than to *t;* vestigial venom duct in fixed finger .... *Wyochernes*

Movable chelal finger with tactile seta *st* nearer to *t* than to *sb;* vestigial venom duct absent from fixed finger .... *Chrysochernes*

45. Tarsus of fourth leg with a tactile seta 46

Tarsus of fourth leg without a tactile seta 50

46. Movable chelal finger with tactile seta *st* closer to *sb* than to *t* .... *Dendrochernes*

Movable chelal finger with tactile seta *st* closer to *t* than to *sb* 47

47. Movable chelal finger (properly oriented in lateral view) with distance between tactile setae *sb* and *st* 2.5 times the distance between *t* and *st* .. .. *Phoberocheirus*

Movable chelal finger with distance between tactile setae *sb* and *st* appreciably less than 2.5 times the distance between *t* and *st* 48

48. Cheliceral hand with setae *sb* and *b* simple and acuminate .... *Acuminochernes*

Cheliceral hand with seta *sb* denticulate and seta *b* acuminate 49

49. Male with strongly developed anvil-shaped process on the inner surface of chelal hand; in female, distance between tactile setae *st* and *sb* of movable chelal finger at least a little more than twice the distance between tactile setae *t* and *st* .... *Mirochernes*

Male without an anvil-shaped process on the inner surface of the chelal hand; in the female, the distance between tactile setae *st* and *sb* on the movable chelal finger seldom more than twice the distance between *t* and *st.* (Some females of *Dinocheirus* may be separated with difficulty from females of *Mirochernes* and a few may actually run to *Mirochernes.*)... .... *Dinocheirus*

50. Chela (exclusive of pedicel) with length/width ratio of 3.1 or more 51

Chela (exclusive of pedicel) with length/width ratio of 3.0 or less 52

51. Fixed chelal finger with tactile seta *ist* distal to the level of *est* .... *Pseudozaona*

Fixed chelal finger with tactile seta *ist* at the level of or a little proximal to the level of *est.* (While the true identity remains unknown, *Chelanops corticis* Ewing is certainly not assignable to *Chelanops* and will not run to this point in the key.) .... *Chelanops*

52. Setae of palpi and tergites bilaterally feathered and leaf-like; some fairly long clavate setae (longer than investing setae) near the center of the outer margin of the fixed finger .... *Illinichernes*

Setae of palpi and tergites not bilaterally feathered; no relatively long clavate setae on the outer margin of the fixed chelal finger 53

53. Cheliceral hand with seta *b* acuminate to strongly denticulate. (Intrageneric variation and the questionable nature of seta *b* in the type species of *Hesperochernes* suggest that *Reginachernes* is a synonym of *Hesperochernes*.) ....*Hesperochernes*

Cheliceral hand with seta *b* acuminate. (As one or more species now assigned to *Hesperochernes* may key to this point, specimens with an acuminate seta *b* should be checked against species in both *Hesperochernes* and *Reginachernes*.) ....*Reginachernes*

54. Femoral articulation of first leg nearly vertical and only slightly mobile; flagellum of chelicera with four blades; median cribriform plate of female not in the form of a relatively slender transverse ribbon with anteriorly curved ends; male with specialized sensory areas on at least some abdominal sternites and lacking a statumen convolutum (subfamily Withiinae, tribe Withiini) ....*Withius*

Femoral articulation of first leg usually oblique and allowing a moderate degree of movement; flagellum of chelicera usually with three blades; if articulation of femur of first leg is nearly vertical and the flagellum has four blades, then the median cribriform plate of the female is a slender transverse ribbon, with the ends curved anteriorly, and the male has a statumen convolutum; male without specialized sensory areas on sternites, but with a statumen convolutum (subfamily Cheliferinae) 55

55. Male with anterior margin of statumen convolutum never more than slightly invaginated, the invagination never bearing a median, rod-like process; coxal sacs of male, when present, usually with a well-defined atrium; female with a single median cribriform plate that is not in the form of a long transverse ribbon (tribe Dactylocheliferini) 56

Male with statumen convolutum having a strongly developed anterior invagination that usually contains a rod-like process; male coxal sacs, when present, lacking an atrium; median cribriform plates of female either paired or in the form of a median transverse ribbon 58

56. Some of the tarsal claws, exclusive of claws of the first leg of the male, bifid or toothed; tarsus of fourth leg with a tactile seta. . *Tyrannochelifer*

Tarsal claws, exclusive of claws of first leg of male, acute and not toothed; tarsus of fourth leg without a tactile seta 57

57. Subterminal setae of tarsus of fourth leg monodentate; movable cheliceral finger with three galeal setae ....*Ellingsenius*

Subterminal setae of tarsus of fourth leg acute, non-dentate; movable cheliceral finger with a single galeal seta ....*Dactylochelifer*

58. Flagellum of chelicera with four blades; ramshorn organs of male absent; median cribriform plate of female in the form of a transverse band (tribe Juxtacheliferini) ....*Juxtachelifer*

Flagellum of chelicera with three blades; ramshorn organs of male virtually always present; median cribriform plates of female paired (tribe Cheliferini) 59

59. Male without coxal sacs; each median cribriform plate in the female with a diameter as great as the diameter of the anterior tracheal trunk ....*Haplochelifer*

Male with coxal sacs; each median cribriform plate of the female with a diameter less than the diameter of the anterior tracheal trunk 60

60. Subterminal setae of fourth pedal tarsus acuminate 61

Subterminal setae of fourth pedal tarsus with one or more subterminal denticulations 62

61. Male with lateral crests on abdominal tergites, with vestigial or weakly developed apical spine on the tarsus of the first leg, and with coxal sacs lacking a specialized cribrate area on the atrial surface ....*Levichelifer*

Male with lateral crests absent or vestigial, without a trace of an apical spine on the tarsus of the first leg, and with coxal sacs having a cribrate area on the surface of the atrium ....*Ocalochelifer*

62. Tarsal claws of the fourth leg bifid or with an accessory tooth 63

Tarsal claws of the fourth leg simple, not toothed 64

63. Seta *sb* of cheliceral hand absent ....*Chelifer*

Seta *sb* of cheliceral hand present ....*Parachelifer*

64. Movable chelal finger with only two tactile setae ....*Xenochelifer*

Movable chelal finger with four tactile setae 65

65. Male with tarsus of first leg lacking an apical spine; lateral keels of anterior tergites of male poorly developed or vestigial 66

Male with tarsus of first leg bearing a well-developed apical spine; lateral keels of anterior abdominal tergites of male at least fairly well developed 67

66. Male without a lateral spur on the coxa of the fourth leg, tergal keels virtually absent ....*Paisochelifer*

Male with a lateral spur on the coxa of the fourth leg, weakly developed tergal keels present ....*Idiochelifer*

67. Fixed chelal finger with tactile seta *it* not much closer to *est* than to *et;* male with a spur on the coxa of the fourth leg ....*Hysterochelifer*

Fixed chelal finger with tactile seta *it* nearly twice as far from *et* as from *est;* male without a spur on the coxa of the fourth leg ....*Phorochelifer*

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